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***Ligularia fisheri* extract attenuates liver damage induced by chronic alcohol intake through activation of antioxidative enzymes, down-regulation of CYP2E1 and inhibition of reactive oxygen species generation**

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The aim of this study was to assess the ability of *Ligularia fisheri* (LF) extract to attenuate ethanol-induced oxidative stress accompanied by hepatotoxicity both *in vitro* and *in vivo*. LF extract at different concentrations (50-500 µg/ml) prevented excessive generation of reactive oxygen species with no cytotoxicity in NCTC-1469 cell lines treated with or without 100 mM ethanol. *In vivo* study was carried out in an alcohol-fed rat model orally administered ethanol with or without LF extracts (100 mg or 200 mg/kg body weight) for 6 weeks. Liver injury markers in serum were attenuated upon LF extract supplementation. Further, LF extract significantly reduced hepatic lipid peroxidation, activated the antioxidant defense system and down-regulated cytochrome P4502E1 in the liver. Lastly, LF extract treatment reduced expression of pro-inflammatory cytokines and diminished alcohol-induced abnormal morphological changes.

Biography

Gi Dong Han has completed his PhD from Niigata University in Japan and Postdoctoral studies from Niigata University School of Medicine. He is the Professor of Yeungnam University in South Korea. He has published more than 25 papers in reputed journals and has been serving as an Administering Board Member of Korean Society of Food Science and Technology.

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